

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/052737

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 F16L11/08 B29C53/58

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 F16L B29C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/183293 A1 (FRASER DANA J) 2 October 2003 (2003-10-02) paragraphs '0009!, '0011!, '0014!, '0021!, '0022! claims 1,4 figures 1-5,8 ----- US 4 266 579 A (DEISS ET AL) 12 May 1981 (1981-05-12) column 2, line 35 - column 3, line 6 figure 2 -----	1-4, 20
A		1,20

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the International search

26 January 2005

Date of mailing of the International search report

07/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Jankowska, M

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/052737

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 2003183293	A1	02-10-2003	BR 0308717 A EP 1488154 A1 WO 03083341 A1	04-01-2005 22-12-2004 09-10-2003
US 4266579	A	12-05-1981	NONE	